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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,577	12/04/2000	Hiroiyuki Iwamoto	14117	4471

23389 7590 04/01/2004

SCULLY SCOTT MURPHY & PRESSER, PC
400 GARDEN CITY PLAZA
GARDEN CITY, NY 11530

EXAMINER

NG, CHRISTINE Y

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 04/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/729,577

Applicant(s)

IWAMOTO, HIROYUKI

Examiner

Christine Ng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 9 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 2-8 and 10-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4&5</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 20-22 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "the cell discriminator" in line 9 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the OAM table" in line 8 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitation "the cell discriminator" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the OAM table" in line 8 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,198,726 to Hayami et al in view of U.S. Patent No. 6,661,795 to Adas et al.

Hayami et al disclose in Figure 22 a system comprising an ATM switch (Element 13) having a plurality of pairs of input and output ports (connected to Element 13), wherein an ATM cell arriving at an input port is transferred to an output port depending on internal header information added to the ATM cell. The system also comprises in Figure 22 an incoming line circuit (Elements 11₁₁-11_{4n}) connected to each of a plurality of input ports of the ATM switch (Element 13) and an outgoing line circuit (Elements 11-11₁₁-11_{4n}) connected to each of a plurality of output ports of the ATM switch (Element 13). The ATM switch (Element 13) switches incoming ATM cells from an incoming line interface (Elements 11₁₁-11_{4n}) to the appropriate destination line interface (Elements 11-11₁₁-11_{4n}). Refer to Column 2, lines 54-65. The incoming line circuit in Figure 1 comprises a cell discriminator (input-side physical layer terminator, Element 31) for discriminating a first OAM cell requiring a response among ATM cells received from a corresponding incoming line (inline #0-#n). The physical layer terminator (Element 31) converts the format of signals entering from lines #0-#n to the ATM cell format and then

outputs the resulting cells. Refer to Column 7, lines 41-45 and Figure 2. The incoming line circuit in Figure 1 also comprises a cell data converter (header converter, Element 34) for converting the first OAM cell to a second OAM cell with internal header information. The header converter 34 "converts a combined identifier, which is a combination of the line identifier and VPI/VCI value that have been added onto a cell, to an internal-processing identifier, ICID"; the ICID is then added onto the ATM cell header. Refer to Column 8, line 24 to Column 9, line 17 and Figures 5-6.

Hayami et al do not disclose that the input and output ports each have different port numbers assigned thereto and that the internal header information indicates an output port of the ATM switch corresponding to the corresponding incoming line so that the second OAM cell is transferred to the output port corresponding to the corresponding incoming line to be sent through a corresponding outgoing line circuit.

Hayami et al disclose that the internal header information includes only an ICID, which is a combination of the line identifier and VPI/VCI, but no port number information. However, Adas et al disclose in Figure 1 that a VPI/VCI is associated with a port number of an ATM switch (Element 106). As shown in Table 110, a route is determined for an ATM cell from an incoming line (Port 1, VPI/VCI = 10,100) of the ATM switch (Element 106) corresponding to an outgoing port (Port 2, VPI/VCI = 10,150) of the ATM switch (Element 106). For a combination of "VPI, VCI, and an input port number, table 110 indicates where the cell is to be routed". Refer to Column 2, lines 15-33. Since "any given ATM switch may be coupled to a plurality of ATM end devices and/or to a plurality of other ATM switching", a table for each ATM switch is established

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which includes "any number of vertical entries that uniquely associate specific input ports, output ports, and virtual connection values". Refer to Column 2, lines 51-65.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the internal header information indicates an output port of the ATM switch corresponding to the corresponding incoming line so that the second OAM cell is transferred to the output port corresponding to the corresponding incoming line to be sent through a corresponding outgoing line circuit. One would have been motivated to do so because since an ATM switch includes many ports for connection to end devices and/or other ATM switches, various ATM cells with different VPI/VCI connections would arrive at a single switch. An ATM cell associated with a certain VPI/VCI value would have to be routed from a designated input port to a designated output port in order to facilitate routing.

Allowable Subject Matter

6. Claims 2-8 and 10-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (703) 305-8395. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Chau can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng *ω*
March 25, 2004



CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
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